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EXAMINER	
PATEL, CHANDRAHAS B	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/698,807	Applicant(s) SITARAMAN ET AL.	
	Examiner Chandrahas Patel	**Art Unit** 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 10-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 1, 11, 19, 27, 35, 44, 49, 53, 58, are objected to because of the following informalities: In the amendments made to claims, “From” is misspelled “Form”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-5, 11, 12, 16, 18-20, 24, 26-28, 32, 34-36, 40, 42-47, 49, 50, 52-55, 56, 58, 59, 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veeneman et al. (USPN 6,771,650) in view of Chang et al. (USPN 7,133,420).

Regarding claim 1, Veeneman teaches a method for creating a bundle of soft permanent virtual circuits (SPVCs) coupling form a source end to a destination end via a communications network **[Fig. 4]**, comprising: creating an SPVC bundle for the source end **[Col. 3, lines 34-38, where bundle of paths are crated by multiple connections]** the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each member SPVC comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**, each of the member SPVCs being associated with a respective connection characteristic and coupling to a same

destination **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**; transmitting, from the source end to the destination end, an SPVC setup message containing configuration information of the SPVC bundle **[Col. 4, lines 55-64]**, the configuration information comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with**

appropriate QoS and packets are routed on appropriate path according to appropriate QoS].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claims 2, 45, 54, Veeneman teaches receiving parameters defining the SPVC bundle at the source end, the configuration information transmitted to the destination end corresponding to the parameters **[Col. 4, lines 43-46]**.

Regarding claim 3, Veeneman teaches automatically creating, at the destination end, in response to the SPVC setup message, the SPVC bundle for the destination end in accordance with the configuration information **[Col. 4, lines 55-64]**.

Regarding claim 4, Veeneman teaches the connection characteristic comprises at least one of: a traffic parameter **[Col. 3, lines 64-67 – Col. 4, lines 1-2]**.

Regarding claims 5, 12, 20, 28, 36, 46, 50, 55, 59, Veeneman teaches the configuration information comprises: bundle-level parameters; and parameters for individual member SPVCs **[Col. 4, lines 24-25]**.

Regarding claims 16, 24, 32, 40, 47, 56, Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Col. 7, lines 23-26]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to associate each of the member SPVCs with an IP precedence level to indicate quality of service associated with the member **[Col. 7, lines 23-26]**.

Regarding claim 11, Veeneman teaches a method for creating, at a destination network device, a bundle of soft permanent virtual circuits (SPVCs) coupling form a source network device to the destination network device via a communications network **[Fig. 4]**, comprising: receiving and decoding an SPVC setup message containing SPVC bundle information for creating an SPVC bundle coupled from a specified source end **[Col. 4, lines 55-58]**, the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each of the member SPVC comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**; extracting parameters from the SPVC bundle information **[Col. 4, lines 20-22]**, the parameters comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**; and creating the SPVC bundle based on the extracted parameters **[Col. 4, lines 24-25]**, each of the member SPVCs being associated with a respective connection characteristic and coupled from the specified source end **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination network device **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claims 18, 52, 61, Veeneman teaches allocating a PVC connection and an SVC connection on the destination network device for each member SPVC **[Col. 4, lines 55-59]**.

Regarding claim 19, Veeneman teaches a network device for creating a bundle of soft permanent virtual circuits (SPVCs) coupling from a source end to a destination end via a communications network **[Fig. 4]**, network device comprising: an interface adapted to receive commands and parameters to create an SPVC bundle comprising a plurality of member SPVCs **[Fig. 3, 36170, has interface to receive commands, Col.**

3, lines 28-36], each of the member SPVCs comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**; an SPVC bundle manager coupled to interface, adapted to configure the SPVC bundle in accordance with the parameters **[Col. 3, lines 38-40]**, each of the member SPVCs being associated with a respective connection characteristic and coupling to a same destination **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**; an SPVC manager coupled to SPVC bundle manager, adapted to create an SPVC bundle setup request and SPVC bundle information based on data received from SPVC bundle manager **[Col. 3, lines 50-54]**; and a signaling module coupled to SPVC manager, adapted to encode and transmit an SPVC setup message containing the SPVC bundle information **[Col. 4, lines 20-26, BWA is the signaling module that send parameters containing SPVC bundle information]**, the bundle information comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping

rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claims 26, 34, Veeneman teaches a connection manager coupled to SPVC bundle manager, adapted to allocate a PVC connection and an SVC connection on network device for each of the member SPVCs **[Col. 4, lines 55-59]**.

Regarding claim 27, Veeneman teaches a network device for a destination end of a bundle of soft permanent virtual circuits (SPVCs) coupling form a source end to the destination end via a communications network **[Fig. 4]**, network device comprising: a signaling module adapted to receive and decode an SPVC setup message containing SPVC bundle information for creating an SPVC bundle coupled from a specified source end **[Col. 4, lines 55-58]**, the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each of the member SPVC comprising a permanent virtual circuit (PVC)

and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**, the bundle information comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**; and an SPVC bundle manger adapted to extract parameters from the SPVC bundle information **[Col. 4, lines 20-22]**; and to create the SPVC bundle, each of the member SPVCs being associated with a respective connection characteristic and coupled from the specified source end **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from

the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claim 35, Veeneman teaches a system for creating a bundle of soft permanent virtual circuits (SPVCs) coupling form a source end to a destination end via a communications network **[Fig. 4]** the system comprising: a source network device **[Fig. 4, x]**, comprising: an interface adapted to receive commands and parameters to create an SPVC bundle comprising a plurality of member SPVCs **[Fig. 3, 36170, has interface to receive commands, Col. 3, lines 28-36]**, each of the member SPVCs comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**, the parameters comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**; a first SPVC bundle manager coupled to interface, adapted to configure the SPVC bundle to a specified destination bundle based on the parameters **[Col. 3, lines 38-40]**, each of the member SPVCs being associated with a respective connection characteristic and coupling to a same destination **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**; a first SPVC manager coupled to first SPVC bundle manager, adapted to create an SPVC bundle

setup request and SPVC bundle information based on data received from first SPVC bundle manager **[Col. 3, lines 50-54]**; and a signaling module coupled to SPVC manager, adapted to encode and transmit an SPVC setup message containing the SPVC bundle information **[Col. 4, lines 20-26, BWA is the signaling module that send parameters containing SPVC bundle information]** and a destination network device **[Fig. 4, y]**, comprising: a second signaling module adapted to receive and decode the SPVC setup message containing SPVC bundle information **[Col. 4, lines 55-58]**; and a second SPVC bundle manger, adapted to extract parameters from the SPVC bundle information **[Col. 4, lines 20-22]** to configure the SPVC bundle and create the member SPVCs for the destination end **[Fig. 4, bundle of paths going from x to y]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP

packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claim 42, Veeneman teaches a first connection manager coupled to first SPVC bundle manager, adapted to allocate a PVC connection and an SVC connection on said source network device for each member SPVC **[Col. 4, lines 55-59, this connection manager is associated with x]**.

Regarding claim 43, Veeneman teaches a second connection manager coupled to second SPVC bundle manager, adapted to allocate a PVC connection and an SVC connection on destination network device for each member SPVC **[Col. 4, lines 55-59, this connection manager is associated with y]**.

Regarding claim 44, Veeneman teaches an apparatus for creating a bundle of soft permanent virtual circuits (SPVCs) coupling form a source end to a destination end via a communications network **[Fig. 4]**, comprising: means for creating an SPVC bundle for the source end **[Col. 3, lines 34-38, where bundle of paths are crated by multiple connections]** the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each member SPVC comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**, each of the member SPVCs being

associated with a respective connection characteristic and coupling to a same destination **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**; and means for transmitting, from the source end to the destination end, an SPVC setup message containing configuration information of the SPVC bundle **[Col. 4, lines 55-64]**, the configuration information comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with**

appropriate QoS and packets are routed on appropriate path according to appropriate QoS].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claim 49, Veeneman teaches an apparatus for creating, at a destination network device, a bundle of soft permanent virtual circuits (SPVCs) coupling form a source network device to the destination network device via a communications network **[Fig. 4]**, comprising: means for receiving and decoding an SPVC setup message containing SPVC bundle information for creating an SPVC bundle coupled from a specified source end **[Col. 4, lines 55-58]**, the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each of the member SPVC comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**; means for extracting parameters from the SPVC bundle information **[Col. 4, lines 20-22]**, the parameters comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**; and means for creating the SPVC bundle based on the extracted parameters **[Col. 4, lines 24-25]**, each of the member SPVCs being associated with a respective connection characteristic and coupled from the specified source end **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service

(QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claim 53, Veeneman teaches a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for creating a bundle of soft permanent virtual circuits (SPVCs) coupling form a source end to a destination end via a communications network **[Col. 2,**

lines 58-62, switches have software to execute the instructions], comprising: creating an SPVC bundle for the source end **[Col. 3, lines 34-38, where bundle of paths are crated by multiple connections]** the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each member SPVC comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**, each of the member SPVCs being associated with a respective connection characteristic and coupling to a same destination **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**; and transmitting, from the source end to the destination end, an SPVC setup message containing configuration information of the SPVC bundle **[Col. 4, lines 55-64]**, the configuration information comprising bumping rules for individual member SPVCs, the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

Regarding claim 58, Veeneman teaches a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for creating, at a destination network device, a bundle of soft permanent virtual circuits (SPVCs) coupling from a source network device to the destination network device via a communication network, **[Col. 2, lines 58-62, switches have software to execute the instructions]**, comprising: receiving and decoding an SPVC setup message containing SPVC bundle information for creating an SPVC bundle coupled from a specified source end **[Col. 4, lines 55-58]**, the SPVC bundle comprising a plurality of member SPVCs **[Fig. 2, 36170]**, each of the member SPVC comprising a permanent virtual circuit (PVC) and a switched virtual circuit (SVC) **[Col. 3, lines 34-36]**; extracting parameters from the SPVC bundle information **[Col. 4, lines 20-22]**, the parameters comprising bumping rules for individual member SPVCs,

the bumping rules specifying to which member SPVC traffic should be bumped when a specific member SPVC fails **[Col 6, lines 42-55, uses different circuits if one of the circuits fail]**; and creating the SPVC bundle based on the extracted parameters **[Col. 4, lines 24-25]**, each of the member SPVCs being associated with a respective connection characteristic and coupled from the specified source end **[Fig. 4, bundle of paths going from x to y and each path has a cost associated with it]**, wherein each of the connection characteristics includes a respective quality of service (QoS) parameter that is maintained as Internet Protocol (IP) packets propagate from the source end, over the communication network, and to the destination end **[Col. 3, line 64 – Col. 4, line 13, Fig. 4, costs of links and admin weights are used for QoS parameter and are compared as IP packets travel through the links]**.

However, Veeneman does not teach associating each of the member SPVCs with a respective IP precedence level, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end.

Chang teaches associating each of the member SPVCs with a respective IP precedence level **[Fig. 1, 111A, 111B, each route is associated with separate precedence level]**, the precedence levels being used in bumping rules for the IP packets such that the QoS parameter is maintained as the IP packets propagate from the source end to the destination end **[Col. 4, lines 14-29, IP packets are marked with appropriate QoS and packets are routed on appropriate path according to appropriate QoS]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level so that QoS can be guaranteed by choosing an appropriate path **[Col. 1, lines 50-65]**.

5. Claims 6-8, 13-15, 21-23, 29-31, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veeneman et al. (USPN 6,771,650) and Chang et al. (USPN 7,133,420) in view of Allan et al. (USPN 5,946,313).

Regarding claims 6, 13, 21, 29, 37, Veeneman teaches a method, a network device, and a system as discussed in rejection of claims 5, 12, 20, 28, and 36 respectively.

However, Veeneman does not teach the bundle-level parameters comprise: network service access point (NSAP) address; encapsulation parameters; and address map parameters.

Allan teaches the bundle-level parameters comprise: network service access point (NSAP) address **[Col. 8, lines 56-58]**; encapsulation parameters **[Col. 8, lines 61-63]**; and address map parameters **[Col. 7, lines 62-64]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include NSAP to give a unique identification **[Col. 8, lines 56-58]**; encapsulation parameter to avoid performing CRC check **[Col. 8, lines 64-67 – Col. 9, lines 1-3]**; address map parameter so that address could be mapped to destination MAC **[Col. 7, lines 62-64]**.

Regarding claims 7, 14, 22, 30, 38, Veeneman further teaches the parameters for individual member SPVCs comprise at least one of: traffic parameters; and VPI/VCI values **[Col. 3, lines 64-67 – Col. 4, lines 1-2]**.

Regarding claims 8, 15, 23, 31, 39, Chang teaches the parameters for individual members of SPVCs comprise **at least one of**: Internet Protocol (IP) precedence levels; and parameters specifying bumping rules **[Col. 7, lines 23-26]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have IP precedence level as one of the parameter for indicated quality of service associated with the connection **[Col. 7, lines 23-26]**.

6. Claims 10, 17, 25, 33, 41, 48, 51, 57, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veeneman et al. (USPN 6,771,650) and Chang et al. (USPN 7,133,420) in view of Hamedani et al. (USPN 6,560,242).

Regarding claims 10, 17, 25, 33, 41, 48, 51, 57, 60, Veeneman teaches a method, a network device, a system, an apparatus and a program storage device as discussed in rejection of claims 1, 11, 19, 27, 35, 44, 49, 53, and 58 respectively.

However, Veeneman does not teach transmitting the SPVC setup message using the Generic Application Transport information element (GAT IE).

Hamedani teaches teach transmitting the SPVC setup message using the Generic Application Transport information element (GAT IE) **[Col. 6, lines 4-6]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use GATE IE to transmit setup message so that routers that are not capable of performing various conversions can be supported **[Col. 6, lines 9-17]**.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrahas Patel whose telephone number is (571)270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2416

/Chandrahas Patel/
Examiner, Art Unit 2416